

## REFERENCES

- [1] Balabhaskar Balasundaram, Sergiy Butenko, and Illya V. Hicks. 2011. Clique Relaxations in Social Network Analysis: The Maximum  $k$ -Plex Problem. *Operations Research* 59, 1 (2011), 133–142.
- [2] Vladimir Batagelj and Matjaž Zaveršnik. 2003. An  $O(m)$  Algorithm for Cores Decomposition of Networks. *CoRR* cs.DS/0310049 (2003).
- [3] Matthias Benter, Anne-Sophie Himmel, Hendrik Molter, Marco Morik, Rolf Niedermeier, and René Saitenmacher. 2019. Listing All Maximal  $k$ -Plexes in Temporal Graphs. *ACM J. Exp. Algorithmics* 24, Article 1.13 (Sep 2019).
- [4] Devora Berlowitz, Sara Cohen, and Benny Kimelfeld. 2015. Efficient Enumeration of Maximal  $k$ -Plexes. In *Proc. ACM SIGMOD Int. Conf. Manage. Data (SIGMOD)*. 431–444.
- [5] Coen Bron and Joep Kerbosch. 1973. Algorithm 457: Finding All Cliques of an Undirected Graph. *Commun. ACM* 16, 9 (1973), 575–577.
- [6] Randy Carraghan and Panos M. Pardalos. 1990. An Exact Algorithm for the Maximum Clique Problem. *Operations Research Letter* 9, 6 (1990), 375–382.
- [7] Lijun Chang. 2019. Efficient Maximum Clique Computation over Large Sparse Graphs. In *Proc. ACM SIGKDD Int. Conf. Knowl. Discov. Data Mining (SIGKDD)*. 529–538.
- [8] Lijun Chang. 2023. Efficient Maximum  $k$ -Defective Clique Computation with Improved Time Complexity. 1, 3 (2023), 1–26.
- [9] Lijun Chang and Lu Qin. 2018. *Cohesive Subgraph Computation over Large Sparse Graphs*. Springer.
- [10] Lijun Chang, Mouyi Xu, and Darren Strash. 2022. Efficient Maximum  $k$ -Plex Computation over Large Sparse Graphs. *Proceedings of the VLDB Endowment* 16, 2 (2022), 127–139.
- [11] Lijun Chang and Kai Yao. 2024. Maximum  $k$ -Plex Computation: Theory and Practice. *Proceedings of the ACM on Management of Data* 2, 1 (2024), 1–26.
- [12] Lu Chen, Chengfei Liu, Rui Zhou, Jiajie Xu, and Jianxin Li. 2021. Efficient exact algorithms for maximum balanced biclique search in bipartite graphs. In *Proc. ACM SIGMOD Int. Conf. Manage. Data (SIGMOD)*. 248–260.
- [13] Peilin Chen, Hai Wan, Shaowei Cai, Jia Li, and Haicheng Chen. 2020. Local Search with Dynamic-Threshold Configuration Checking and Incremental Neighborhood Updating for Maximum  $k$ -Plex Problem. In *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*. 2343–2350.
- [14] Jonathan Cohen. 2008. Trusses: Cohesive Subgraphs for Social Network Analysis. *National Security Agency Technical Report* 16, 3.1 (2008).
- [15] Alessio Conte, Tiziano De Matteis, Daniele De Sensi, Roberto Grossi, Andrea Marino, and Luca Versari. 2018. D2K: Scalable Community Detection in Massive Networks via Small-Diameter  $k$ -Plexes. In *Proc. ACM SIGKDD Int. Conf. Knowl. Discov. Data Mining (SIGKDD)*. 1272–1281.
- [16] Alessio Conte, Roberto De Virgilio, Antonio Maccioni, Maurizio Patrignani, Riccardo Torlone, et al. 2016. Finding All Maximal Cliques in Very Large Social Networks. In *Proceedings of the International Conference on Extending Database Technology (EDBT)*. 173–184.
- [17] Alessio Conte, Donatella Firmani, Caterina Mordente, Maurizio Patrignani, and Riccardo Torlone. 2017. Fast Enumeration of Large  $k$ -Plexes. In *Proc. ACM SIGKDD Int. Conf. Knowl. Discov. Data Mining (SIGKDD)*. 115–124.
- [18] Qiangqiang Dai, Rong-Hua Li, Meihao Liao, Hongzhi Chen, and Guoren Wang. 2022. Fast Maximal Clique Enumeration on Uncertain Graphs: A Pivot-based Approach. In *Proc. ACM SIGMOD Int. Conf. Manage. Data (SIGMOD)*. 2034–2047.
- [19] Qiangqiang Dai, Rong-Hua Li, Meihao Liao, and Guoren Wang. 2023. Maximal Defective Clique Enumeration. *Proc. ACM SIGMOD Int. Conf. Manage. Data (SIGMOD)* 1, 1 (2023), 1–26.
- [20] Qiangqiang Dai, Rong-Hua Li, Hongchao Qin, Meihao Liao, and Guoren Wang. 2022. Scaling Up Maximal  $k$ -Plex Enumeration. In *Proceedings of the ACM International Conference on Information and Knowledge Management (CIKM)*. 345–354.
- [21] Qiangqiang Dai, Rong-Hua Li, Xiaowei Ye, Meihao Liao, Weipeng Zhang, and Guoren Wang. 2023. Hereditary Cohesive Subgraphs Enumeration on Bipartite Graphs: The Power of Pivot-based Approaches. *Proc. ACM SIGMOD Int. Conf. Manage. Data (SIGMOD)* 1, 2 (2023), 1–26.
- [22] David Eppstein, Maarten Löffler, and Darren Strash. 2013. Listing All Maximal Cliques in Large Sparse Real-World Graphs. *ACM J. Exp. Algorithmics* 18, Article 3.1 (Nov 2013).
- [23] Yixiang Fang, Xin Huang, Lu Qin, Ying Zhang, Wenjie Zhang, Reynold Cheng, and Xuemin Lin. 2020. A Survey of Community Search over Big Graphs. *The VLDB Journal* 29 (2020), 353–392.
- [24] Yixiang Fang, Kai Wang, Xuemin Lin, and Wenjie Zhang. 2021. Cohesive Subgraph Search over Big Heterogeneous Information Networks: Applications, Challenges, and Solutions. In *Proc. ACM SIGMOD Int. Conf. Manage. Data (SIGMOD)*. 2829–2838.
- [25] Jian Gao, Jiejiang Chen, Minghao Yin, Rong Chen, and Yiyuan Wang. 2018. An Exact Algorithm for Maximum  $k$ -Plexes in Massive Graphs. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*. 1449–1455.
- [26] Shuohao Gao, Kaiqiang Yu, Shengxin Liu, and Cheng Long. 2024. Maximum  $k$ -Plex Search: An Alternated Reduction-and-Bound Method (Technical report). <https://shuohaogao.github.io/pdf/xxxxxxxxxx>.
- [27] Shuohao Gao, Kaiqiang Yu, Shengxin Liu, Cheng Long, and Zelong Qiu. 2024. On Searching Maximum Directed  $(k, \ell)$ -Plex. In *Proceedings of the IEEE International Conference on Data Engineering (ICDE)*. 2570–2583.
- [28] Guimu Guo, Da Yan, M Tamer Özsu, Zhe Jiang, and Jalal Khalil. 2020. Scalable Mining of Maximal Quasi-Cliques: An Algorithm-System Codesign Approach. *Proceedings of the VLDB Endowment* 14, 4 (2020), 573–585.
- [29] Guimu Guo, Da Yan, Lyuheng Yuan, Jalal Khalil, Cheng Long, Zhe Jiang, and Yang Zhou. 2022. Maximal Directed Quasi-Clique Mining. In *Proceedings of the IEEE International Conference on Data Engineering (ICDE)*. 1900–1913.
- [30] Xin Huang, Laks V. S. Lakshmanan, and Jianliang Xu. 2019. *Community Search over Big Graphs*. Morgan & Claypool Publishers.
- [31] Hua Jiang, Fusheng Xu, Zhifei Zheng, Bowen Wang, and Wei Zhou. 2023. A Refined Upper Bound and Inprocessing for the Maximum  $K$ -Plex Problem. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*.
- [32] Hua Jiang, Dongming Zhu, Zhichao Xie, Shaowen Yao, and Zhang-Hua Fu. 2021. A New Upper Bound Based on Vertex Partitioning for the Maximum  $k$ -Plex Problem. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*. 1689–1696.
- [33] Valdis E Krebs. 2002. Mapping Networks of Terrorist Cells. *Connections* 24, 3 (2002), 43–52.
- [34] Victor E. Lee, Ning Ruan, Ruoming Jin, and Charu Aggarwal. 2010. A Survey of Algorithms for Dense Subgraph Discovery. *Managing and Mining Graph Data* (2010), 303–336.
- [35] Wensheng Luo, Kenli Li, Xu Zhou, Yunjun Gao, and Keqin Li. 2022. Maximum Biplex Search over Bipartite Graphs. In *Proceedings of the IEEE International Conference on Data Engineering (ICDE)*. 898–910.
- [36] Chenhao Ma, Yixiang Fang, Reynold Cheng, Laks VS Lakshmanan, Wenjie Zhang, and Xuemin Lin. 2021. On directed densest subgraph discovery. *ACM Transactions on Database Systems (TODS)* 46, 4 (2021), 1–45.
- [37] Benjamin McClosky and Illya V. Hicks. 2012. Combinatorial Algorithms for the Maximum  $k$ -Plex Problem. *Journal of Combinatorial Optimization* 23, 1 (2012), 29–49.
- [38] Hannes Moser, Rolf Niedermeier, and Manuel Sorge. 2012. Exact Combinatorial Algorithms and Experiments for Finding Maximum  $k$ -Plexes. *Journal of Combinatorial Optimization* 24, 3 (2012), 347–373.
- [39] Kevin A. Naudé. 2016. Refined Pivot Selection for Maximal Clique Enumeration in Graphs. *Theoretical Computer Science* 613 (2016), 28–37.
- [40] Panos M. Pardalos and Jue Xue. 1994. The Maximum Clique Problem. *Journal of Global Optimization* 4, 3 (1994), 301–328.
- [41] Stephen B. Seidman. 1983. Network Structure and Minimum Degree. *Social Networks* 5, 3 (1983), 269–287.
- [42] Stephen B. Seidman and Brian L. Foster. 1978. A Graph-Theoretic Generalization of the Clique Concept. *Journal of Mathematical Sociology* 6, 1 (1978), 139–154.
- [43] Etsuji Tomita. 2017. Efficient Algorithms for Finding Maximum and Maximal Cliques and Their Applications. In *Proceedings of the International Conference and Workshops on Algorithms and Computation (WALCOM)*. 3–15.
- [44] Etsuji Tomita, Akira Tanaka, and Haruhisa Takahashi. 2006. The Worst-Case Time Complexity for Generating All Maximal Cliques and Computational Experiments. *Theoretical Computer Science* 363, 1 (2006), 28–42.
- [45] Jia Wang and James Cheng. 2012. Truss Decomposition in Massive Networks. *Proceedings of the VLDB Endowment* 5, 9 (2012), 812–823.
- [46] Zhuo Wang, Qun Chen, Boyi Hou, Bo Suo, Zhanhuai Li, Wei Pan, and Zachary G. Ives. 2017. Parallelizing Maximal Clique and  $k$ -Plex Enumeration over Graph Data. *J. Parallel and Distrib. Comput.* 106 (2017), 79–91.
- [47] Zhengren Wang, Yi Zhou, Chunyu Luo, and Mingyu Xiao. 2023. A Fast Maximum  $k$ -Plex Algorithm Parameterized by the Degeneracy Gap. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*. 5648–5656.
- [48] Zhengren Wang, Yi Zhou, Mingyu Xiao, and Bakhadyr Khousainov. 2022. Listing Maximal  $k$ -Plexes in Large Real-World Graphs. In *Proceedings of the ACM Web Conference (WWW)*. 1517–1527.
- [49] Bin Wu and Xin Pei. 2007. A Parallel Algorithm for Enumerating All the Maximal  $k$ -Plexes. In *Proceedings of the International Workshops on Emerging Technologies in Knowledge Discovery and Data Mining (PAKDD workshop)*. 476–483.
- [50] Mingyu Xiao, Weibo Lin, Yuanshun Dai, and Yifeng Zeng. 2017. A Fast Algorithm to Compute Maximum  $k$ -Plexes in Social Network Analysis. In *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*. 919–925.
- [51] Yichen Xu, Chenhao Ma, Yixiang Fang, and Zhifeng Bao. 2024. Efficient and Effective Algorithms for Densest Subgraph Discovery and Maintenance. *The VLDB Journal* (2024).
- [52] Kaiqiang Yu and Cheng Long. 2023. Fast Maximal Quasi-Clique Enumeration: A Pruning and Branching Co-Design Approach. *Proc. ACM SIGMOD Int. Conf. Manage. Data (SIGMOD)* 1, 3 (2023), 1–26.
- [53] Kaiqiang Yu and Cheng Long. 2023. Maximum  $k$ -Biplex Search on Bipartite Graphs: A Symmetric-BK Branching Approach. *Proc. ACM SIGMOD Int. Conf. Manage. Data (SIGMOD)* 1, 1 (2023), 1–26.
- [54] Kaiqiang Yu, Cheng Long, Shengxin Liu, and Da Yan. 2022. Efficient Algorithms for Maximal  $k$ -Biplex Enumeration. In *Proc. ACM SIGMOD Int. Conf. Manage. Data (SIGMOD)*. 860–873.